

**C. subterranea** new species.

Pale rufo-testaceous, head and thorax shining. Elytra dull. Head elliptical excluding the globular basal part, about three times as long as broad and three fourths as broad as prothorax, broadly and shallowly grooved at sides of front and with a few fine striæ within the grooves and posterior to the same; the antennæ fully three fourths length of body and with outer joints somewhat enlarged. Prothorax about three times as long as broad, base slightly emarginate. Apex truncate and three fourths width of base, the sides gradually divergent and almost straight from apex to beyond middle where they become slightly arcuate and then gradually sinuate to base, the lateral margin finely but distinctly and acutely defined, more evident basally, the disc smooth and but slightly convex, the median longitudinal line fine and extending from base to close to apex, the anterior and basal transverse lines vaguely defined. Elytra elliptical, over twice as long as broad and two and a half times as broad as thorax, apices of each elytron obtusely pointed and divergent, the lateral margin clearly defined and slightly reflexed, the disc barely convex and with striæ fine and complete, the surface minutely alutaceous. Body beneath dull. Length 8.5 mm., breadth 2 mm.

Type, a unique female captured March 12-18, 1903, in a cave near Austin, Texas, by Professor J. H. Comstock. The specimen is now deposited in the collection of the entomological department of Cornell University at Ithaca, N. Y.

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**BOREAPHILUS, A GENUS OF STAPHYLINID  
COLEOPTERA NEW TO NORTH AMERICA.**

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The genus *Boreaphilus* was first described by Sahlberg. (Ins. Fenn. I, 433, 1.) It has not been possible to consult this description. It is stated by Lacordaire, however, that Erichson's description is a repetition of the original. (Erich. Gen. et Sp. Staph., p. 899; Lac. Gen. des Col., II, p. 138.) It is as follows:

"Palpi anteriores 4-articulati, articulo tertio clavato, ultimo parvo, subulato, posteriores minuti, filiformes. Mandibula elongata, tenuis, falcata, integra. Antennæ subfiliformes, extrorsum paulo crassiores. Corpus postice dilatatum. Caput orbiculatum, subexsertum. Thorax oblongus."

The type species is *B. henningianus* Sahlb. (Erichs., *l. c.*; Kraatz, Berl. Ent. Zeits., I, 1857, p. 41.)

The genus was enlarged by Lacordaire to include *Coryphium* Steph. (Steph. Ill. Brit. Ent., V, p. 344; Lac., *l. c.*, p. 137)—a change suggested by Erichson (*l. c.*, p. 900). Neither of these authors had seen specimens of *Coryphium* (*angusticolle*, Steph.), nor are specimens now at hand. A good figure, however, is given in a paper by Dr. Kraatz (Berl. Ent. Zeit., I, 1857, taf. I), where it may be seen that *Coryphium* differs much in form from *Boreaphilus* but bears a strong resemblance to *Eudectus*, differing from the latter in the less sharply angulate sides of the thorax. The thorax of *Coryphium* is obcordate (Steph., *l. c.*; Muls. et Rey, Soc. Linn. Lyon, p. 392); that of *Boreaphilus* is oblong and subangulate a little before the middle. A difference in the antennæ is also given; in *Coryphium* scarcely thicker towards the extremity with the first two joints scarcely incrassate; in *Boreaphilus* distinctly thicker towards the extremity with the first joint strongly incrassate, the second a little less so. (Muls. et Rey, *l. c.*) However, this thickening of the outer joints of the antennæ is more apparent in *B. velox* than in *B. henningianus*, which is not included in the work of Mulsant and Rey here cited. *Coryphium* is placed as a distinct genus in the Catalogus of Gemminger and Harold (II, p. 664), and in subsequent authors.

These genera, *Boreaphilus*, *Coryphium*, *Eudectus* and the genera *Niphetodes* and *Ephelinus* (*Ephelis*) are placed together in a well-marked group of the Omaliini, differing by the strongly incrassate and truncate third joint of the maxillary palpi and the small subulate fourth joint.

Another genus now regarded as a synonym of *Boreaphilus* deserves mention—*Chevricria* was described by Heer. (Fn. Helv., I, 1838-1842, p. 188.) It has been impossible to consult this description, but the genus is said to have been separated from *Boreaphilus* by a character—the presence of a strong tooth on the mandibles (Kr., *l. c.*, p. 36), since found to be also present in *Boreaphilus*. The type species, *B. velox* Heer, differs from the other Boreaphili in the presence of fully developed wings, which seems to have escaped notice, for none of the authors consulted, with one exception mention the fact that the under wings in *B. henningianus* are almost entirely aborted and unsuited for flight; the exception being the description

by Haliday of *B. henningianus* in the Entomologist, Vol. I, p. 187, as follows: "Bor. henningianus. *Apterus*, thorace oblongo capite angustiore et elytris thorace parum longioribus fortiter punctatis."

*Niphetodes* was described by Miller (Verh. zööl.-bot. Ges. Wien, XVIII, 1868, p. 16), and made a subgenus of *Boreaphilus* by Ganglbauer. (Kaf. v. Mittleu., II, p. 700.) The genus was subsequently recognized as valid by Ganglbauer. (Ann. Nat. Hofmus. Wien, II, 1896, p. 174.) The species placed in this genus are said to be wingless; a fact which has not been verified from lack of material. It has been ascertained that in *Niphetodes debeli* Gangl. the elytra are solidly anchylosed, which is not the case in *B. henningianus*.

Miller's description of *Niphetodes* is as follows:

"Mandibulæ tenues, falcatae, medio dente longiore armatae.

"Maxillæ malis elongatus, mala interiore intus apice ciliata.

"Palpi maxillares articulo tertio tumido, quarto minimo, subulato.

"Palpi labiales articulo primo secundo duplo longiore.

"Prothorax lateribus rotundatus.

"Elytra prothoracis longitudine; alæ desunt.

"Tibiæ muticæ, tarsi articulis quatuor primis longitudine subæqualibus."

To which may be added, as Ganglbauer states, that the ocelli are lacking, a fact which distinguishes the species from the rest of the Omaliini.

An examination of specimens of *N. debeli* Gangl. and *N. eppelsheimi* Gangl. shows that the thorax of *debeli* is like that of *Boreaphilus henningianus*, and that of *eppelsheimi* is like that of *Coryphium angusticolle*, being more or less cordate. It is, however, slightly narrower than the head. *B. debeli* is placed in a subgenus *Hypsonothrus* by Ganglbauer.

The genus *Ephelinus* Cock (*Ephelis* Fauv.) is of interest as containing three species described by LeConte, placed originally by him in *Coryphium*. (Lec. New Sp. Col., I, 1863, p. 57.) The only structural character given by him is that of the shape of the thorax, thus: (1) *pallidum*, "thorace latitudine haud brevior, postice parum angustato lateribus serrulatis." (2) *guttatum*, "thorace latitudine haud brevior, postice modice angustato, lateribus obsolete serrulatis, callo dorsali pone medium laevi." (3) *notatum*, "thorace latitudine haud brevior, postice paulo angustato, lateribus serrulatis, callo postico dorsali."

The species were later placed in a new genus, *Ephelis*, by Fauvel, who redescribed two of the species, *guttata* and *notata*, from specimens in his possession. He distinguishes them thus:

- a. Corselet subcordiforme, non transverse, nettement dilaté au 1er tiers antérieur ..... *guttata*  
 b. Corselet subquadrangulaire, légèrement transverse, à peine élargi au 1er quart antérieur ..... *notata*

He comments on the genus thus: "Ce genre me paraît bien distinct des *Coryphium* et des genres voisins par la forme des palpes maxillaires et surtout la structure de ses tarses antérieurs et postérieurs. Son facies est aussi très différent et spécial." The palpi of *Ephelis* are described thus: "Palpi maxillares articulo penultimo apice truncato, ultimo brevissimo, minus gracili, vix conspicuo." According to Leconte the first joint of the posterior tarsi is slightly longer. (Lec. Horn, Class. Col., p. 104.) The genus is changed to *Ephelinus* Cock. in the latest catalogue for nomenclatural reasons. (Coleopterorum Catalogus, Pars 19, p. 83.)

The description of the head and thorax given by Stephens and Mulsant and Rey for *Coryphium* and Fauvel for *Ephelis* are as follows: Stephens—"head triangular, unequal above; thorax not so wide as the head, obcordate, with the sides somewhat margined"; Mulsant and Rey—"Tête grande, proéminente, subtriangulaire, environ de la largeur du prothorax, bifovéolée en avant, subchancrée et fortement resserrée à la base, portée sur un col très court mais bien tranché, aussi large ou à peine plus large que la moitié du vertex"; Fauvel—"Caput basi non constrictum, insertum, linea basali transversali nulla"; and in the redescription of *guttata* Lec.—"thorace paulo longiore quam latiore, latitudine maxima capite paulo latiore." From these descriptions it would seem that in LeConte's three species the head is as wide as the thorax or slightly narrower and that the thorax is not or less strongly transverse than in *Coryphium*.

It is worth noting that the description of *Coryphium* given by Ganglbauer (Käfer, Mittl., II, p. 701) is not in accord with the original description in Stephens or the later one in Mulsant and Rey. "Halsschild quer, breiter als der Kopf und viel breiter als lang, vor der Mitte gerundet erweitert, mässig gewölbt, mit sehr schmall aber deutlich gekehlt abgesetztem, fein gekerbttem Seitenrand."

Four specimens labelled *Boreaphilus henningianus* Sahl. have been

examined. Three of these are alike in every respect and are taken to be the type species. One of two specimens in the collection of the American Museum of Natural History is different and is identified as *B. sahlbergi* Popp. That species is distinguished as follows: "Sehr nahe verwandt mit *B. henningianus* Sahlb. unterscheidet sich aber durch schmälere Kopf, der spärlicher punktiert ist, besonders aber durch den bedeutend schmälere und etwas längere Halsschild, der nach hinten etwas stärker verengt ist. Die Flügeldecken sind etwas länger, viel weitläufiger und etwas feiner punktiert und stärker glänzend." The two American specimens at hand most closely resemble this specimen, which carries the pin label "Fennia. Reitter." They differ in having smaller heads, shorter and more strongly dilated elytra with less prominent shoulders and the elytral punctures are coarser and less closely placed. They differ in these respects from *B. henningianus* and also in the thorax more strongly narrowed behind. In one of the specimens the ocelli are very indistinct.

OMALIINI.

**Boreaphilus**, Sahlb.

Body subelongate or oblong, scarcely convex, pubescent, alate or apterus.

Head large, prominent, suborbicular, larger than the thorax, bifoveolate in front, subemarginate and very strongly constricted at the base with a short, rather narrow neck, one half the width of the head at the vertex or scarcely narrower. Ocelli very distinct, distant, more or less behind the posterior margin of the eyes. Tempora mutic at the sides, genae rather strongly mammillate beneath, gula strongly impressed. Epistoma convex, front broadly and feebly bi-impressed between the eyes, truncate and obsoletely margined in front. Labrum very short, broadly truncate at apex. Mandibles elongate, slender, very acute, strongly falcate, unidentate internally. Maxillary palpi strongly developed, first joint small, second elongate, subarcuate, subclavate, third large strongly incrassate, pyriform, truncate at apex, the last minute, subulate. Labial palpi small, three-jointed, the last slender, the first stouter, subequal in length, slightly larger at apex. Mentum large, transverse, truncate or scarcely sinuate at apex, anterior angles visibly projecting. Eyes moderate or rather small, semiglobular, projecting, more or less distant from the

neck. Antennæ short, more or less robust, almost straight, distinctly thickened externally, first joint strongly incrassate, very shortly oval, second slightly less incrassate, stouter than the third, the latter obconic or elongate conic, the following submoniliform, the outer joints more or less transverse, the last very shortly oval.

Prothorax oblong or suboblong, subattenuate in front, slightly rounded at apex, truncate at base, subangulate-dilate on the sides before the middle, scarcely narrowed or somewhat narrowed behind, very much narrower than the elytra, very finely margined at base and on the sides. Epipleuræ large, visible at the sides, rather narrow in front, dilated and rounded behind.

Scutellum rather small, subogival.

Elytra rather large, suboblong, a little longer than the breast, longer than the thorax, truncate at apex, broadly rounded at the postero-external angles, subrectilinear and distinctly margined at the sides, more finely at apex. Epipleuræ rather strongly inflexed, subarcuate, acute posteriorly. Shoulders prominent.

Prosternum rather strongly developed before the anterior coxæ, angulate and submucronate posteriorly. Mesosternum moderate, subacute behind, the prolongation hardly reaching the middle of the intermediate coxæ. Mesepisternum rather large, separated from the mesosternum by an obsolete margin. Mesepimera moderate, oblong, oblique. Metasternum rather large, not sinuate at the insertion of the posterior coxæ, feebly angulate between them, angulate between the intermediate coxæ and linearly prolonged to the point of the mesosternum. Metepisternum acutely elongate. Metepimera concealed.

Abdomen rather short, shorter than the elytra, large, subacuminate posteriorly, side margins broad and elevated, more or less covered at base, segments subequal, the sixth rather well developed, the armature ( $\delta^1$ ) sometimes apparent. The sixth ventral rather well developed, the seventh sometimes very distinct.

Anterior coxæ moderate, shorter than the femora, projecting, conic, subcontiguous. The intermediate almost as large, scarcely projecting, conic-suboval, slightly distant. The posterior rather large, subcontiguous within, upper lamella transverse, narrow exteriorly, suddenly dilated interiorly, lower lamella rather narrow subvertical.

Feet moderate. Anterior and intermediate trochanters small, sub-

cuneiform, the posterior slightly larger, subelongate. Femora subcompressed, rather narrow, scarcely enlarged at middle. Tibiæ slender at base, scarcely larger at apex, very finely ciliate, mutic, armed with two very small and indistinct spurs. Tarsi ciliate beneath, last joint clavate, subequal to the three preceding united. First four joints rather short, subequal. Claws small, slender, arcuate.

**B. americanus** new species.

Subelongate, dilated posteriorly, pubescence moderately long, somewhat coarse, rising from the punctures. Color dark piceo-ferruginous, abdomen darker, legs, antennæ, mouth, palpi and indefinite spots on head, thorax and elytra paler. Head, thorax and sterna strongly coarsely and somewhat sparsely punctured, interspaces smooth, shining, anterior margin of the clypeus, a median area near the posterior margin of the thorax and inner edge of the genæ beneath impunctured. Elytra more coarsely and sparsely punctured, deeply longitudinally impressed on the disk. Abdomen finely, sparsely

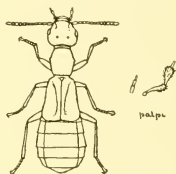


FIG. 1.

and indistinctly punctured above, finely, sparsely, indistinctly and subasperately punctured beneath.

Head suborbicular, subemarginate posteriorly, subequal in length to the thorax and somewhat wider.

Elytra about as wide as long, strongly narrowed anteriorly, at base about as wide as the head.

Abdomen one fourth longer and wider than the elytra.

Head broadly transversely impressed in front of the eyes, with two small and rather deep fossæ equidistant from each other and the eyes, clypeus broad, truncate at apex, labrum very broad and short with a row of short setæ along the anterior margin, mandibles long, slender, falcate. Mentum rather short, broadly and shallowly emarginate and perceptibly bisinuate. Labial palpi three jointed, terminal joint slender, first two joints subequal in length, stouter and slightly longer than the terminal, both slightly broader at apex. Maxillary palpi much longer, first joint small, second elongate, arcuate-sinuate and incrassate at apex, third very strongly and evenly incrassate from base to apex which is transversely truncate, last joint small, slender, subulate,

second and third joints pubescent. Genæ beneath very convex or mamillate, the gula strongly impressed slightly narrowed in front and behind. Eyes rather small, strongly projecting, coarsely faceted and pubescent. Antennæ equal in length to the head and thorax united, somewhat slender, gradually thickened, first joint large, oval, incrassate, second slightly shorter and less incrassate, third more slender, elongate-conic, four to seven subglobular, eight wider and slightly transverse, nine and ten quadrate as wide as eight and eleven, eleven longer than wide, apex acutely rounded.

Prothorax longer than wide, subcylindric, posterior margin slightly wider than the anterior, sides subangulate, slightly compressed in front and indistinctly toothed a little in front of the middle, side margin much depressed, descending to the angulation from the anterior and posterior margins, an indistinct impression on the median line before the middle.

Scutellum somewhat large, acutely triangular, with a few coarse punctures.

Elytra with the shoulders rounded, not very prominent, posterior-external angles widely rounded, posterior margin slightly retracted at the suture.

Tibiae and tarsi pubescent and ciliate, the first four joints of the posterior tarsi subequal, fifth joint equal in length to the three preceding. Length 2.75 mm., breadth 1 mm.

Type ♀ in the collection of the author, paratype ♀ in the collection of Mr. C. W. Leng.

Collected at Roselle Park, Union Co., N. J., by Mr. C. W. Leng.

The species of *Boreaphilus* are found in leaves and moss in damp localities. The American specimens were found with *Stenus*.

Eight species of *Boreaphilus* are listed in the Coleopterorum Catalogus of Junk and Schenkling (Pars 19, 1910, p. 84), of these *henningianus*, *sahlbergi* and *velox* have been mentioned; *astur* Sharp from Asturia is probably allied to *velox*, having rather short and stout antennæ (An. Soc. Esp., I, 1872, p. 266); *carinthiacus* Gangl. is a winged form also allied to *velox* (Gangl. Kaf. Mitteleur., II, 1895, p. 700); *japonicus* Sharp from Japan resembles *henningianus*, but has a smaller head and longer elytra, the latter would distinguish it from *americanus*; *lewisianus* Sharp, also from Japan, is distinguished from *henningianus* by its broader thorax and longer antennal joints—all the joints being longer than broad (Trans. Ent. Soc. Lond., 1874, p. 96). The description of *nordenskiöldi* Mäkl. (Oefv. Finsk. Vet. Soc. Forh., XIX, 1876-77, p. 25) could not be consulted. *B. volans* J. Sahlb., described after the publication of the Coleopterorum Catalogus, Pars 19, is a winged species resembling *velox*, but having more slender antennæ (Medd. Soc. Fauna. Fenn., 37, p. 47, Nov., 1910). These species are from Eastern Siberia and Finland respectively.